RALEIGH AMATEUR RADIO SOCIETY
RARS
WORLDWIDE FRIENDSHIP

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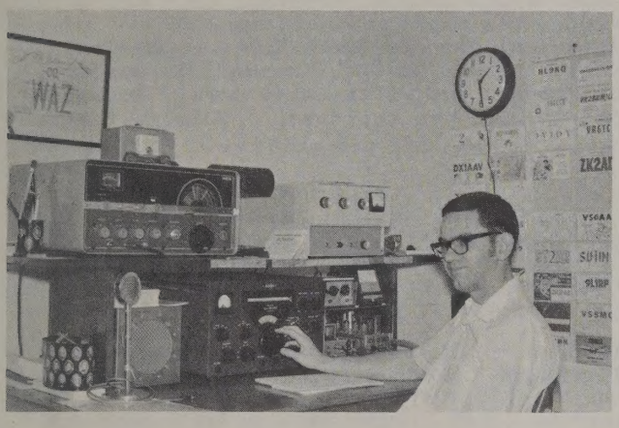
Aug.-Sept. 1970 "Raleigh Amateur Radio Society News" Issue 11

MEET THE TREASURER - BILL MCDOWELL, K4CIA



Pictured above, happily smiling and operating his rig, is Bill ("Old Money Bags") McDowell, Treasurer of RARS. Bill hails originally from Nicholasville, Kentucky and came to Raleigh first in 1966 to work with the laboratory division of the State Board of Health, after receiving his Masters Degree in Public Health at the University of North Carolina. Prior to that he served in the U.S. Air Force, and also attended the University of Kentucky and Eastern Kentucky.

Having been an avid ham for over 15 years, Bill was first licensed as a novice in 1955 and one year later got his general-class ticket. This past May he took and passed the amateur extra-class exams. A hot DX'er on both phone and CW, Bill can be found most any evening on 10, 15 or 20 meters. Further, he often assists Stu Meyer w/the DXpedition of the Month QSL activities. Recently he got his beam up at the home QTH....with the able assistance of John Fried, our name tag chairman, and really puts out a big signal. (One of the neighbors reports that John is still up there acting as a rotator.)

Bill resides at 3709 Huntleigh Dr., Raleigh with his wife, Sue, and daughter, Laura-age five. He has devoted a great deal of time and effort to RARS from the very beginning, his latest being a lot of "brass pounding" at field day. (The Treasurer's job alone is not a small one.)

The club thanks you, Bill, for that extra effort.

Tom, WA4OTA

NEXT MEETING

The next monthly meeting of the RARS will be Wednesday evening, September 2nd at 7:30 p.m. The meeting will be at the Civil Defense Headquarters, in the basement of the N.C. State Government Administration Bldg., on 116 West Jones Street. Ample parking is available behind the building. Please enter through the back door. Everybody is welcome.

AUTO LICENSE TAGS FOR N.C. RADIO AMATEURS

If you did not get your 1970 auto license tag with your radio call sign, you can apply now to the N.C. Department of Motor Vehicles in Raleigh for the 1971 tag. The deadline is November 1, 1970.

The cost of the tag is $ 1.00 extra. When you receive your card for the new tag, add another dollar to that shown on the card. For autos that would be a total of $ 14.00. As long as you buy them each year, there is no requirement to re-apply each year. They are automatically produced. But if you miss buying the tag one year, you will have to apply again. Sorry, but Novices are not eligible.

North Carolina has given us this service because of the public service provided by Amateur Radio. Let's hope everyone that missed getting a tag this year will apply for 1971.

NORTH CAROLINA QSO PARTY

All amateurs are invited to participate in the North Carolina QSO party, sponsored by the Raleigh Amateur Radio Society. All contacts will be made during the 32 hour period from 1800 GMT Saturday, November 7th to 0200 GMT Monday, November 9th. Each station may be worked once on each amateur band. The general call will be CQ NC. Phone and CW will be considered separate contests & will require separate logs. North Carolina stations will send QSO number, RS/T & county. (Total 100). Out-of-state stations will send QSO number, RS/T and ARRL section or country. North Carolina stations will score one point for each contact multiplied by the number of ARRL sections plus countries. Out-of-state stations score one point for each contact multiplied by the number of counties worked.

Suggested frequencies are: 3565, 3865, 3925 7065, 7265, 14065, 14300, 21065, 21365, 28065 and 28565 kHz. A trophy will be awarded to the top scorer in North Carolina, and also to the top scorer outside North Carolina. High scorer in each ARRL section will receive a certificate. High novice scorer will receive a certificate. Logs should show total score on last sheet and should be mailed no later than November 30, 1970. Mail logs to the Raleigh Amateur Radio Society, P.O. Box 12541, Raleigh, North Carolina 27605.

CONVENTION NEWS

The 1970 Roanoke Division ARRL Convention will be held Saturday and Sunday, October 31st - November 1st in Raleigh, N.C. Convention headquarters and all activities will be at the Hilton Inn, 1707 Hillsborough St. Sponsoring the event is the Raleigh Amateur Radio Society, which will operate talk-in stations on 3920 Kc., 50.14 Mc. & 146.94 Mc. (FM).

Planned activities will include ARRL Forum, technical sessions, QCWA meeting, DX Forum, MARS sessions, a Flea Market, code contests with prizes, drawings for numerous goodies and other events. A special YL-XYL program is planned for Saturday. Manufacturers, distributors, clubs and military organizations

will have displays of latest equipment. Vic Clark, W4KFC; Stu Meyer, W2GHK/4; and Gus, Browning, W4BPD, will be among the notables in attendance. The highlight of the convention will be the Saturday evening banquet, to be followed by a guest speaker, Grand - Prize Drawing and the Wouff Hong Ceremony.

A special ladies program is scheduled for all day Saturday .... includes Merle Norman Cosmetic Program, Lunch, Fashion Show, and Shopping Tour.

FOR ROOM RESERVATIONS - Write Direct, or Wire the Hilton Inn, 1707 Hillsborough St., Raleigh, N.C. 27605.

FOR TICKETS AND INFORMATION, write to John Fried, W4WWD, 3606 Winton Road, Raleigh, N. Carolina 27604.

COST OF CONVENTION

Pre-Registration	$ 2.75	per person
Banquet Ticket	$ 8.00	per person
$ 10.50 Advance Combination		

There will be a Friday night get-together in the Hospitality Room at the Inn, for those pre-registering.

At The Door		
Registration	$ 3.00	per person
Banquet Ticket	$ 8.50	per person
LADIES PROGRAM	$ 3.00	at the door
	$ 2.75	advance

Registration begins at 8:30 a.m., Saturday morning.

ANOTHER UPGRADE

Steve Kastelberg, WB4NAW, recently received his Advanced-Class license. He now joins the biggest group in class of license in the RARS. Fine work Steve.

NEW RARS MEMBERS

The Raleigh Amateur Radio Society welcomes four new members to the club. Charles R. Littlewood, W4RUH, Howard Reinhardt, W4VNG, and Allen Weber, WB4PHQ, handed in applications for membership. Charles holds an Extra, and Howard and Allen have the Advanced license. Also, the application for Jim Reid, W4BKL/WA4LPI, was approved. Welcome to the club, fellows.

RARS NEWS SUBSCRIPTIONS

If you are not on the RARS News mailing list and desire to be, send one dollar to Jim Wilson, WB4HAL, 828 Greenwich Street, Raleigh, N.C. 27610. This will cover postage and handling for one year.

RARS ROSTER SPLATTER

The RARS roster published last month had a few mistakes in the call letters. W4EEI should be W4EEL, W4IXW should be K4IXW and W4ZVK is really K4ZVK. And WN4MUX has a new phone number - 782-3499.

RARS THANKS LOCAL ELECTRONICS STORES

Southeastern Radio Supply at 414 Hillsborough Street, Capital Electronics at 425 Glenwood Avenue, and Radio Shack in the North Hills Mall all have consented for free copies of the RARS News to be displayed for the general public. We hope this will bring some new members to our club. Pass the word to your friends on where to get the RARS news.

QRM FROM THE EDITOR

A number of amateurs on the air and in person have expressed a desire to receive a copy of the RARS News each month. Jim Wilson, WB4HAL, has agreed to take the chore of mailing out the newsletters. But, it takes money. One dollar will cover postage and handling costs for one year. So, if you know someone who is not receiving the RARS News, and they would like to be on a mailing list, tell them to send one dollar to Jim Wilson, WB4HAL, or to the RARS.

The RARS News is an excellent outlet for advertising your gear or for want ads...all free. Between four and five hundred newsletters are sent out each month, at present, with about 80 to 90 percent in North Carolina. One local amateur reported several phone calls about one of his ads the first week.

Bob Johnson, W4CQJ, helped make the July RARS auction a "screaming" success. Where else could you buy an S-38 for one dollar, an AM-FM radio for 50¢ (it worked!), 813 tubes for less than a dollar each and many other bargains. Bob sold old junk parts that couldn't be given away. Everyone had a good time. Many items that were sold were given to the club for convention expenses. Donated items and sale commissions netted the club over $ 130.00. If Bob couldn't get what he thought it was worth, he would bid on it himself to force the price up. It's a fact he didn't go home empty handed! Congratulations on another fine auction Bob. We are all looking forward to the next one.
Dave, W4YDY

CALENDAR of EVENTS
RARS

July 1 ..... Regular meeting
July 21 ..... Executive committee meets
August 5 ..... Regular meeting
August 18 ..... Executive committee meets
Sept. 2 ..... Regular meeting
Sept. 15 ..... Executive committee meets
October 7 ..... Regular meeting
October 20 ..... Executive committee meets
October 31-.. Roanoke Convention in Raleigh
November 1
Nov. 1-7 ..... N.C. Amateur Radio Week
Nov. 4 ..... Regular meeting
Nov. 7-8 ..... N.C. QSO party
Nov. 17 ..... Executive committee meets
December 2 ..... Regular meeting
December 15 ..... Executive committee meets

ABOVE DATES ARE SUBJECT TO ADDITIONS AND CHANGES

NOTE: SPECIAL CONVENTION PLANNING MEETINGS WILL BE CALLED AS REQUIRED

MINI-TECHNICAL REVIEW

June CQ begins 2-part bit on model airplanes with radio and then QSYs to q, f,and BW with a 2-gallon cavity to KO 6M TVI. The ARC500 we find out is the venerable ARC5x780, that last being pep for linear. Don't ever throw anything, see? Nextis a simple 80M dipole that looks like a TWT and it does save space so don't skip this QSO. Someone stole a line off the bottom of the Smith Chart and so we publicize how to read watts from SWR. (Actually, maybe Smitty had'em in db) A bit of history given on man behind Morse, Alfred Vail. Vy FB wid modern proof in Morristown, N.J. These OTs were gud. The sequel to calibrating DC meters follows and so 73 to CQ.

July/Aug. CQ uses its Zero Bias to air the Student Info Net. Interesting from several angles. Read it and take sides. Hot poop on SS current reg, cheaper CW filtering, interlaced 10-15M beam, novice approach to the skin effect (No! Don't take it off!), and a concluding pitch on model controlfollow. Check our own W2GHK/4, W4ATC, wid W4KFC in the CQWWDX (Phone) lineup. CQ 73s wid 2M cavity filter.

Sept. CQ tha's R, Sept. 70, starts right off in the ring, letting a victim of Camille praise hamdon after a sour grape blasted us all for ragtag activities during this crucial time. Logic circuits agn. That's the first part of 2 on digital CQ; then we see the CW results of the contest. Making rigid coax from cheaper materials is QSO#5, and then we visit with Barry in VN MARS. Motorizing the crankup and the Q&A corner discussing product detector makings help us to recover from the shock, Sept. 70 CQ!

July HAM shows us how to handle twilite zone between 14 and 50 MHz, with inductive tuning. Just a little plumbing and you have a FB amplifier for the odd freqs. Then come a SS recvr, tricky little freq. counter w/fig 8 readouts, 2M KW linear using 5CX1500A, several teleprinter models, SS RF generator 120 Hz - 95 MHz, SCR power supplies, and now microwave hybrids and couplers. Read all about the retrace, MW style. If anybody drags us yakking hams into the TV arena, it'll be HAM. They are now using computer processing to grab slow-scan pics on the boob tube. Complex now but the day's coming .....Per usual hats off to this mag.

August HAM getting big for its britches now wid a leadoff interdigital preamp and bandpass filter. Then it cools off a bit with a design for freq. stabilization in oscillators (where else?) based on VXO with the BC604 FM tank. An esoteric QSO on computer aided analysis is good for NCSU with its computers, and then we alight on a tunable audio filter for CW using cascaded Raytheon RM709 ICs, a VFO for SS xmtrs using cheaper MPF102 jfets and bipolar HEP55. Repair Bench QSOs distortion wid the usual checks.A good antenna pitch dealing with typical parameters and climaxing with a good design leads into a FB article on fabricating PC boards. HAM at its fair-to-middling state.

July QST starts off with a think-big 5B antenna, designed by the old pro,John Kraus, W8JK. If you can dig his master text Antennas, this project shouldn't take more than a month with help. Next, we have the old reliable Gonset Communicator rehabbed with a FET preamp and a few other goodies to put this FB rig back up front in the limelite. Power line QRM is QSOd to help frustrated hams near such. Could solve some tricky QRTs. Then comes a transmatch for lo and hi power, with and without plugin coils. Good coverage on 7 Mar eclipse; now we know why the lites went out. Some peace pipe smoke fer ARRL es MARS; now we can go forward agn, (we never really stopped) and then we read all about the annual meet of ARRL in Hartford. Our own Vic, W4KFC, was hrd from on all hot issues; got his pic even. Be sure to devour this section; our future is at stake. Got shot down on having meets twice, but can't winnem all. FB leading, Vic! Mr. CW got his Extra and 250th DXCC piece of real estate; K4CIA is really blocking that grid. Cud go on and on, but I got better idea. YOU read this extra FB QST yourself.

August QST bids to support ARRL. As QST subscriber, you are one of 100 K unsung salesmen; so, sing the praises and get others in the fold, even if all you do is listen to free code every night from gud ole W1AW. Several articles on HB, portable QRP rigs for 40 and 80M, Part I on short antennas for long freqs are some of the goodies this issue as is a FB Q&A QSO for novices. There are several QSOs on 50MHz rigs, and antennas for 6M, followed by poop on the ole SP600 and design data on SX122A and the SB200. Part I on op amps really gud, covering basic logic and getting into Bode plots. Mighty slim pickins fer NC in the 23d emergency test (sim). Isn't this supposed to be Our Thing? Watsamatta? Section on world above 50MHz looming ever issue. Doggone if we'll strike our 160M rigs. This superhet es SSB is fer the birds. It can't last.

July 73 still FMing with autopatch used with FM repeater for emergencies. Big plus is commo can be had with only a hand-held radio. Has possibilities.Be sure to read. Then read about 2-channel search-lock for FM recvrs. Uses flip - flop with 2 xtal osc tubes and 709 opamp to make an automatic scanner. Neat trick. VHF next with 450 MHz recvr and ½-gal 6M rig. Transmitting slow-scan COLOR is covered, as is a power supply wid IC voltreg but first article has pretty gurl. She's nice. DXpedition to Latham Is and beginning guide on Gen Class exam are next offered. Several other interesting bits help to round out another gift to hams. 73 to 73.

August 73 begins with how QST squanders out cash, and how to save like 73. Then, incidentally, we hear about mounting mobile rigs, a vy gud QSO. A neat way to beef up the input Z to your VOM without opening the leads is described using ole grand-dad UA709 op amp. UHF antenna spacing and how to play chess on the ham bands are next brought in. A VHF-AM xmtr with cheap xstrs and the design of the venerable rhombic follow. 73 does it with Part II of its GC license'guide and a page on the K1TPX Ham Club. What did you say about your problems? This FB club's members are BLIND.

MAY WE HAVE YOUR HELP .... If you have an out-of-town buddy who might be persuaded to come to our Roanoke Division Convention, please bring his name and address to the next meeting and the club will send him complete details.

Shelby N.C. HAMFEST Information

The "Hamfest" will be September 6 at Brackett Cedar Park on Highway No. 10, about 14 miles North of Shelby. Registration will begin about 9:00 A.M. This Hamfest has been billed by many as the "Hamfest of the Southeast," and we expect well over 1000 persons to attend. There will be camping facilities, bingo for women and children, Sunday School, playground for the children. The admission is $ 4.00 for adults and $ 2.00 for children which is all inclusive of meal and registration. The food will consist of southern fried chicken, barbecue, and all the trimmings you can eat. For further details regarding the Hamfest and motel reservations, write C.F. Harry, III, Secretary, Shelby Radio Club,Grover N.C. 28073.

MESSENGER COMMUNICATIONS

When we think about planning for or providing communications to support emergencies,, "Every Means Available" is a term that we do not analyze carefully before a plan is developed. In many cases we limit our thinking to "Wireles Emergency Means," because, from habit we plan for the use of two-way radio as a back-up for telephone communications, and there we stop. What happens if we lose both telephone and radio communications in a disaster area? The fact that all electrical means in an area are inoperative due to damage does not reduce the requirement for some type of emergency communication. As emergency - oriented communicators, we might be faced with this type of situation. If so, what do we do about it? If we have planned for the use of "Every Means Available," the problem will not be as difficult to solve as it might be otherwise.

Suppose in developing our basic emergency communication plan we had assumed that all electrical means would be lost for some unknown period of time and had developed a plan for an "Organized Emergency Messenger Service" to cover this contingency, what are some points that we would have considered? First, messenger service is a simple indispensable means of communication in common use in some form every day. Second, of all the methods of communication, messenger service is the least dependent upon electronic equipment and electrical power. Third, it is usually the best means for transmitting voluminous reports maps, photographs, etc. Fourth, it can be used as a means for delivery of critical items such as medical supplies to a scene of disaster. Fifth, there are several types of messenger service such as foot, motor, water and air. Sixth, messengers can be dispatched on a scheduled basis and "Special" or "On Call" service can be provided. Seventh, messengers do not require highly specialized technical training.

Like all methods of communication, messenger service has its limitations, the greatest is probably speed. However, if all other means are inoperative at a given point in time, it could be the fastest means available. Even with electrical means available, there will be occasions when it would be advisable to send large volumes of low priority administrative messages by messenger and reserve the telecommunications circuits for high priority operational messages.

When we plan for emergency communications, let's consider the advantages of a well organized messenger service.
Clif Blalock, W4GLK, Communications Officer
N.C. Civil Defense Agency

CAROLINAS NET NEWS

As your new Route Manager (RM) I would like to pass along a message, which I believe to be of importance. If it were not, I wouldn't bother to waste your time or mine.

First, let me say the shoes will be hard to fill (even if my feet are bigger than John's!) W4IRE did a fine job and we all eagerly seek his continuing support to our CW traffic programs.

Secondly, let me inject into your thinking a term that apparently has been overlooked by many Amateur operators. I call it "Omnibus Communications Capability" or OCC, or simply an all-around communications capability.

The pride of being able to hack the communications at hand in any mode does not come easy. It takes work. However, it is work that does produce satisfaction. Being able to pass traffic on CW as well as SSB takes a well-rounded operator, and one that usually participates in both modes. Imagine, if you will, a communications emergency where the saving of life would depend on YOU banging out a CW message. Could you deliver the goods? This is one item I don't plan losing any sleep over, that's for sure!

If you want to keep up your "OCC" try participating in our CW nets to keep yourself familiar with traffic techniques that may be helpful to you someday. The schedule for these nets appears below. I will furnish you, upon request, with operating aids and we all will assist you in any way. You may even find you enjoy being able to back up your ticket, regardless of its class.
Chuck Brydges, W4WXZ RM

CW NET SCHEDULES FOR CN-CAROLINAS NET (FOR N.C. AND S.C.)

CNE (E for early session)	3573 kHz	2245Z	(6:45 PM EDST)
CNL (L for late session)	3573 kHz	0200Z	(10:00 PM EDST)

Also slow-speed session for those not used to CW net operation, and want to get their feet wet!

CAROLINAS NET REPORT

	June	July		June	July
Total Traffic	56	38	Average QNI	5.5	6.2
Average Traffic	1.8	1.3	Different Stations	24	30
Message Rate	.11	.08	Total Net Time	487	450
Total Check-ins	164	180	Average Net Time	16.2	15.5

	June	July
Total Sessions	30/31	29/31

Carl, WB4MLI

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